



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,458	02/02/2005	Takuya Matsumoto	2004-1077A	7569
513            7590            04/25/2007 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER MCGRAW, TREVOR EDWIN	
			ART UNIT 3752	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/25/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/501,458	MATSUMOTO, TAKUYA
	<b>Examiner</b>	<b>Art Unit</b>
	Trevor McGraw	3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 February 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-15 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 02 February 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/19/2004</u> .	6) <input type="checkbox"/> Other: _____

Art Unit: 3752

## DETAILED ACTION

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "A-D converter" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "A-D converter" is not supported within the specification and reference to "A-D converter" renders the Claims indefinite (see 35 U.S.C. § 112 Second Paragraph Rejection below).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 4, 7, 8, 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 4 of Claim 3, it is unclear to Examiner as to what Applicant means when stating the limitation "...being exposed outside." It is not clear what "being exposed outside" is in reference to as Applicant does not include any further limitations to better define the claimed invention. Examiner suggests completing Claim 3 so that the limitation "...being exposed outside" is clear and definite within the scope the invention where the claim language is positively recited.

Art Unit: 3752

In line 5 of Claim 4, it is unclear to Examiner as to what Applicant means when using the term "A-D converter" as Applicant has not supplied any supporting recitation to the term "A-D converter" in the specification and renders Claim 4 as being indefinite as the term has not been defined in regard to the scope of invention. Examiner suggests that Applicant provide proper disclosure for what Applicant deems as his invention. It is with utmost importance that Applicant does not insert any new matter into the application. For examination purposes Examiner is viewing "A-D converter" as an analog digital converter but it is requested that Applicant make clarify the terminology for the record.

With regard to Claims 7, 10 and 11, Examiner cannot determine as to what Applicant means when reciting the limitations "being an automatic one" in line 2 of Claim 7, line 1 of Claim 10, and line 12 of Claim 11. The limitations "being an automatic one" are not within the scope of what has Applicant has disclosed and does not appear that the spray gun is an automatic spraying gun as such support is not in the specification.

Claim 8 recites the limitation "the power source" in line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner suggests making proper reference to the limitation "the power source" in either Claim 8 or the preceding claims that Claims 8 depends to ensure proper antecedence is maintained within the claims.

***Claim Rejections - 35 USC § 102***

Art Unit: 3752

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 4-7 and 9-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmon (DE 10031857).

In regard to Claim 1, Schmon (DE 10031857) teaches a spray gun (1) having a gun body (1; Figure 1) that atomizes paint for spraying towards an object with a pressure indication unit (27) that is formed as at least a part of a grip (2) of the spray gun (1) to be removably installable to the spray gun grip (1,2; The cover "38" of "27" is at least removably installed to the spray gun grip where the pressure indication unit (27) is a pressure transducer (signal converter) system having a pressure sensor (28) that has a coupling portion (44) for coupling to a fluid channel (19) in the spray gun body (1) and communicates with the fluid channel (19) where a digital converter (29) is supplied

Art Unit: 3752

with a detection signal from the pressure sensor (28) and converts the signal into a digital signal (Column 4, lines 21-28; the circuit is inherently capable of converting the signal into a digital signal by cooperating with the pressure sensor "28" as "29" has corresponding circuits to send signals to the LCD screen "30") and a digital indicator (30) provides a digital indication of the digital signal output from the converter (Column 4, Lines 26-28) where the pressure indication unit (27) is removably installed to the spray gun body (1; the cover "38" of the pressure indication unit "27" is removable via screws from the spray gun body along with associated electrical hardware that enables the pressure indication unit to operate). Thus the Spray gun of Schmon has a pressure indicator (27), pressure sensor (28), circuit board (29), power terminals (34) connected to the circuit board (29) and a pressure sensitive element (piezoelectric pressure sensor) of the pressure sensor (28) that is exposed in the compressed air channel (44) being exposed outside.

In regard to Claims 4 and 5, Schmon also teaches where a spray gun (1) is supplied with pressure adjustable compressed air through a compressed air intake and provides a jet of atomizing air in which a pressure sensor (28) is exposed in a channel (44) for the pressure adjustable compressed air where there is build in the spray gun a circuit board forming a digital converter which converts a pressure detection output from the pressure sensor into an electrical signal by an Analog to Digital Converter to provide an output signal for digital indication and the output signal from the digital converter is used to provide a digital indication of the pressure of compressed air or control the spraying from the spray gun where the digital indicator (30) is provided in a part of the

spray gun and a power source (42) for the digital indicator and digital converter are built in the spray gun (1) where the indicator and power source are individually removable (Column 4, Lines 14-53; Pressure sensor 28 converts the analog signal to be displayed on the digital output LCD screen for a user to observe).

With regard to Claim 9, Schmon teaches a spray gun (1) having a gun barrel (Figure 1 and 4) with an atomizing air cap (25), paint supply adjuster (11), spray pattern adjuster (23) and air valve (17) and an adapter having a compressed air intake and outlet which is formed for removable installation to at least a part of a grip of the spray gun extending backward and downward from the gun barrel (Figure 1 next to lower portion of cross section line C-C where the coupling is shown going into 19. The inlet comes from the pressurized source of compressed air and exits into 19 through the coupling outlet; See also Figure 4).

In regard to Claims 7, 10 and 11, Schmon further teaches where the spray gun is inherently capable of being an automatic spray gun that is operable with a supply of pre-adjusted compressed air via the valve regulator (18; Column 3, Lines 43-61).

In regard to Claim 12, 13, 14 and 15, Schmon additionally teaches where the power source (42), pressure indication unit or transducer (27), and circuit board are built in the spray gun (1) and are isolated from the outside by a sealing means (39).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3752

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3, 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmon (DE 10031857).

In regard to Claims 2, 3, 6 and 9 Schmon as taught and described above teaches that the pressure indication unit (27) is integrated into the handle of the spray gun body (1; Column 4, line 14-15), a compressed air coupling and a compressed air outlet for coupling to a compressed air channel in the spray gun body (1; Figure 1 next to lower portion of cross section line C-C where the coupling is shown going into 19. The inlet comes from the pressurized source of compressed air and exits into 19 through the coupling outlet; See also Figure 4) but fails to teach where the pressure transducer or pressure indication unit (27; Pressure sensor "28", circuit board column 4, lines 21-23, digital indicator '30" are formed integrally and can be uninstalled from the spray gun) is embodied as a module that incorporates the pressure transducer (27) as a major piece of the handle.

It would have been obvious to one having ordinary skill in the art at the time the present invention was made to make the pressure transducer (27) as taught by Schmon removable from the spray gun (1), since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art (*Nerwin v. Elichman*, 168 USPQ 177, 179) whereas making the pressure transducer (27) removable from the spray gun body (1) is ideal in the art so as that in the event of a

Art Unit: 3752

pressure transducer malfunction or poor operating status, only the module would have to be replaced in lieu of the entire spray gun where the pressure transducer system cannot be removed from the gun.

In regard to Claim 8, Schmon further teaches where the power source (42), pressure indication unit or transducer (27), and circuit board are built in the spray gun (1) and are isolated from the outside by a sealing means (39).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smith (US 5,191,797), Kukesh (US 4,809,909).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

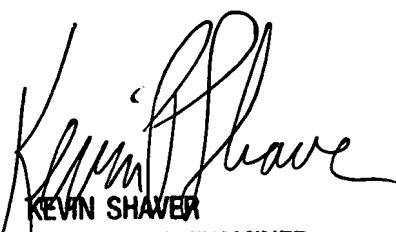
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Trevor McGraw  
Art Unit 3752

TEM



KEVIN SHAVER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700